Docket No.: 03-8012
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
James H. Drew et al.

Application No.: 10/699,141   Confirmation No.: 3441

Filed: October 31, 2003   Art Unit: 3623

For: PERSONNEL PRODUCTIVITY INDICES   Examiner: J. G. Sterrett

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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     This Appeal Brief is filed pursuant to 37 C.F.R. § 41.37 in furtherance of the Notice of Appeal filed on August 28, 2009. This Appeal Brief appeals the decision of the Examiner in the Final Office Action dated May 29, 2009 ("Final Office Action"), and the Advisory Action dated August 17, 2009 ("Advisory Action"). This application was filed on October 31, 2003.

     Any fees associated with this Appeal Brief are identified in the accompanying TRANSMITTAL OF APPEAL BRIEF.

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I. REAL PARTY IN INTEREST

The real party in interest of the present application, solely for purposes of identifying and avoiding potential conflicts of interest by board members due to working in matters in which the member has a financial interest, is Verizon Communications Inc. and its subsidiary companies, which currently include Verizon Business Global, LLC (formerly MCI, LLC) and Cellco Partnership (doing business as Verizon Wireless, and which includes as a minority partner affiliates of Vodafone Group Plc). Verizon Communications Inc. or one of its subsidiary companies is an assignee of record of the present application.

II. RELATED APPEALS AND INTERFERENCES

Applicants (hereinafter "Appellants") are not aware of any related appeals or interferences that would affect the Board's decision on the current appeal.

III. STATUS OF CLAIMS

Claims 1, 3, and 5-34 are pending. Claims 1, 22, 29, and 33 are independent claims. Claims 2 and 4 were previously canceled. The appealed claims are reproduced in an Appendix to this Appeal Brief. No claims have been canceled or withdrawn following the Final Office Action.

IV. STATUS OF AMENDMENTS

Appellants did not submit, and the Examiner did not enter, any amendments after the Final Office Action dated May 29, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following is a concise explanation of the subject matter defined in at least each of the independent claims involved in the appeal, as required by 3 C.F.R. §41.37(c)(1)(v). The following explanation is not intended to be used to construe the claims, which are believed to speak for themselves. Nor does Appellant intend the following explanation to modify or add any claim elements, or to constitute a disclaimer of any equivalents to which the claim would otherwise be entitled. Nor is any reference to certain preferred embodiments herein intended to disclaim other possible embodiments.

The following summary of the presently claimed subject matter indicates certain portions of the specification (including the drawings) that provide examples of embodiments of elements of the claimed subject matter. It is to be understood that other portions of the specification not cited herein may also provide examples of embodiments of elements of the claimed subject matter. It is also to be understood that the indicated examples are merely examples, and the scope of the claimed subject matter includes alternative embodiments and equivalents thereof. References herein to the specification are thus intended to be exemplary and not limiting.

A.   Claim 1

Independent claim 1 recites a computer implemented method of determining comparable performance measures for employees having differing task assignments, comprising:

storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task (e.g., Figure 4, element 402; page 17, lines 14-18; and page 22, lines 1-17);

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data (e.g., Figure 1, element 108; page 6, lines 13-15; and page 22, lines 1-3);

selecting a centralized composite design as said model design (e.g., Figure 1, element 102; page 6, lines 19-22; and page 14, lines 11-22);

performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores (e.g., Figure 1, elements 112 and 114;

page 6, lines 8-18; page 7, lines 4-10; page 8, lines 1-22; page 14, line 5-20; and page 17, lines 4-18);

analyzing said productivity scores to determine productivity parameters, wherein analyzing said productivity scores comprises applying linear regression techniques to said productivity scores utilizing said computing system (e.g., Figure 1, element 118; page 6, lines 8-18; page 7, lines 11-17; page 8, lines 1-11; page 9, lines 1-15; page 10, lines 12-18; page 13. line 11 – page 14, line 3; and page 17, line 19 – page 18, line 8); and

applying said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees (e.g., Figure 1, elements 120 and 126; page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

B.   Claim 3

Claim 3 recites the method of claim 1, wherein said linear regression is applied to an expression for said productivity scores having a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'}, \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters (e.g., page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

C.   Claim 5

Claim 5 recites the method of claim 1, wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10); and

modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10).

D.   Claim 6

Claim 6 recites the method of claim 1, further comprising:

calculating statistical measures for said performance measures over a time period (e.g., Figure 2, elements 202, 204, 208, and 210; page 7, lines 18-21; and page 20, lines 1-8); and

identifying employees having performance measures outside a range of said statistical measures (e.g., Figure 2, element 210; page 7, lines 18-21; page 20, lines 1-21; and page 21, lines 12-22).

E.   Claim 7

Claim 7 recites the method of claim 6, further comprising identifying trends in said performance measures over multiple ones of said time period (e.g., page 7, lines 18-21; and page 21, lines 12-22).

F.   Claim 8

Claim 8 recites the method of claim 1, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18).

G.   Claim 9

Claim 9 recites the method of claim 8, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked (e.g., page 6, line 19 – page 7, line 3; page 8, lines 12-22; and page 17, lines 11-18).

H.   Claim 10

Claim 10 recites the method of claim 1, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments

and with assigning productivity scores (e.g., page 7, lines 4-10; page 14, lines 4-22; and page 23, lines 1-5).

I.   Claim 11

Claim 11 recites the method of claim 10, further comprising:

assigning evaluator parameters to each of said plurality of evaluators (Figure 1, element 130; page 7, lines 4-10; and page 18, lines 9-18);

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3);

removing said anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3); and

returning to analyzing said productivity scores (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3).

J.   Claim 12

Claim 12 recites the method of claim 11, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked (e.g., page 6, line 19 – page 7, line 3; page 8, lines 12-22; and page 17, lines 11-18).

K.   Claim 13

Claim 13 recites the method of claim 10, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters (e.g., Figure 1, elements 108, 116, and 130; page 6, line 19 – page 7, line 10; page 9, line 16 – page 10, line 2; page 17, lines 4-18; and page 18, lines 9-18).

L.   Claim 14

Claim 14 recites the method of claim 1, wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10); and

modifying said selected model design by a fractional factorial when said sets of task scores exceed said predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10).

M.   Claim 15

Claim 15 recites the method of claim 14, wherein analyzing said productivity scores comprises applying linear regression techniques to said productivity scores (e.g., page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

N.   Claim 16

Claim 16 recites the method of claim 15, wherein said linear regression is applied to the expression

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} , \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters (e.g., page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

O.   Claim 17

Claim 17 recites the method of claim 16, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores (e.g., page 7, lines 4-10; page 14, lines 4-22; and page 23, lines 1-5).

P.   Claim 18

Claim 18 recites the method of claim 17, further comprising:

assigning evaluator parameters to each of said plurality of evaluators (Figure 1, element 130; page 7, lines 4-10; and page 18, lines 9-18);

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3);

removing said anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3); and

returning to analyzing said productivity scores (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3).

Q.   Claim 19

Claim 19 recites the method of claim 18, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18).

R.   Claim 20

Claim 20 recites the method of claim 19, further comprising:

calculating statistical measures for said performance measures over a selected time period (e.g., Figure 2, elements 202, 204, 208, and 210; page 7, lines 18-21; and page 20, lines 1-8); and

identifying employees having performance measures outside a range of said statistical measures (e.g., Figure 2, element 210; page 7, lines 18-21; page 20, lines 1-21; and page 21, lines 12-22).

S.   Claim 21

Claim 21 recites the method of claim 20, further comprising identifying trends in said performance measures over multiple ones of said selected time periods (e.g., page 7, lines 18-21; and page 21, lines 12-22).

T.   Claim 22

Independent claim 22 recites a computer implemented method of determining productivity parameters for evaluating employee performance for employees having differing task assignments, comprising:

storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task (e.g., Figure 4, element 402; page 17, lines 14-18; and page 22, lines 1-17);

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data (e.g., Figure 1, element 108; page 6, lines 13-15; and page 22, lines 1-3);

selecting a centralized composite design as said model design (e.g., page 6, lines 19-22; and page 14, lines 11-22);

performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores (e.g., Figure 1, elements 112 and 114; page 6, lines 8-18; page 7, lines 4-10; page 8, lines 1-22; page 14, line 5-20; and page 17, lines 4-18); and

applying linear regression techniques to said productivity scores utilizing the computing system to obtain said productivity parameters using an expression having a form

$$PS_t(F_{t1}, F_{t2}, \ldots, F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'}, \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters (e.g., Figure 1, elements 120 and 126; page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

U.   Claim 23

Claim 23 recites the method of claim 22, wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10); and

modifying said selected model design by a fractional factorial when said sets of task scores exceed said predetermined number (e.g., page 6, lines 19-22; and page 17, lines 4-10).

V.   Claim 24

Claim 24 recites the method of claim 22, wherein generating said sets of task scores comprises adding a number of recorded task scores to said sets of task scores (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18).

W.   Claim 25

Claim 25 recites the method of claim 24, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked (e.g., page 6, line 19 – page 7, line 3; page 8, lines 12-22; and page 17, lines 11-18).

X.   Claim 26

Claim 26 recites the method of claim 22, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores (e.g., page 7, lines 4-10; page 14, lines 4-22; and page 23, lines 1-5).

Y.   Claim 27

Claim 27 recites the method of claim 26, further comprising:

assigning evaluator parameters to each of said plurality of evaluators (Figure 1, element 130; page 7, lines 4-10; and page 18, lines 9-18);

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of

said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3);

removing said anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3); and

returning to analyzing said productivity scores (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3).

Z.   Claim 28

Claim 28 recites the method of claim 27, wherein generating said sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18).

AA.   Claim 29

Independent claim 29 recites a computer-readable medium containing instructions for controlling a computer system to determine comparable performance measures for employees having differing task assignments, said instructions controlling said computer system to:

store employee task data, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task (e.g., Figure 4, element 402; page 17, lines 14-18; and page 22, lines 1-17);

generate sets of task scores based on a selected model design of task assignments utilizing said employee task data, wherein said model design is a centralized composite design (e.g., Figure 1, element 108; page 6, lines 13-22; page 14, lines 11-22; and page 22, lines 1-3);

obtain a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores (e.g., Figure 1, elements 112 and 114; page 6, lines 8-18; page 7, lines 4-10; page 8, lines 1-22; page 14, line 5-20; and page 17, lines 4-18);

apply linear regression techniques to said productivity scores to obtain said productivity parameters using an expression having a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} , \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values, $F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters (e.g., Figure 1, elements 120 and 126; page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21); and

apply said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees (e.g., Figure 1, elements 120 and 126; page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

BB.   Claim 30

Claim 30 recites the computer-readable medium of claim 29, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores (e.g., page 7, lines 4-10; page 14, lines 4-22; and page 23, lines 1-5).

CC.   Claim 31

Claim 31 recites the computer-readable medium of claim 30, further comprising instructions for controlling the computer to:

assign evaluator parameters to each of said plurality of evaluators (Figure 1, element 130; page 7, lines 4-10; and page 18, lines 9-18);

compare said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3);

remove said anomalous ones of said plurality of evaluations (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3); and

return to analyzing said productivity scores (e.g., Figure 1, elements 118, 128, 132, 134, and 136; page 7, lines 4-10; page 8, lines 12-22; page 18, line 9 – page 10, line 2; and page 18, line 9 – page 19, line 3).

DD.   Claim 32

Claim 32 recites the computer-readable medium of claim 31, wherein:

said instructions to generate said sets of task scores comprise instructions for controlling the computer to add a number of recorded task scores to said sets of task scores (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18); and

said instructions to compare said plurality of productivity scores comprise instructions for controlling the computer to use said productivity scores assigned to said recorded task scores by each of said evaluators as one of said evaluator parameters (e.g., Figure 1, elements 108 and 116; page 6, line 19 – page 7, line 3; and page 17, lines 4-18).

EE.   Claim 33

Independent claim 33 recites a computer implemented application on computer-readable medium, said application comprising instructions to compare employee performance for employees having differing task assignments, said application comparing employee performance by:

storing employee task data, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task (e.g., Figure 4, element 402; page 17, lines 14-18; and page 22, lines 1-17);

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data, wherein said model design is a centralized composite design (e.g., Figure 1, element 108; Figure 1, element 108; page 17, lines 14-18; and page 22, lines 1-17);

obtaining a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores (e.g., Figure 1, elements 112 and 114; page 6, lines 8-18; page 7, lines 4-10; page 8, lines 1-22; page 14, line 5-20; and page 17, lines 4-18);

analyzing said productivity scores to determine productivity parameters (e.g., Figure 1, element 118; page 6, lines 8-18; page 7, lines 11-17; page 8, lines 1-11; page 9, lines 1-15; page 10, lines 12-18; page 13. line 11 – page 14, line 3; and page 17, line 19 – page 18, line 8);

applying said productivity parameters to employee task scores for said employees to obtain performance measures for said employees (e.g., Figure 1, elements 120 and 126; page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21);

calculating statistical measures for said performance measures over a time period (e.g., Figure 2, element 206; page 7, lines 15-18; page 10, lines 3-11; page 20, lines 1-8; and page 21, lines 12-22); and

identifying employees having performance measures outside a range of said statistical measures (e.g., Figure 2, element 210; page 7, lines 18-21; page 10, lines 3-11; page 13, line 15 – page 14, line 3; and page 19, lines 4-21).

FF.   Claim 34

Claim 34 recites the computer implemented application of claim 33, wherein analyzing said productivity scores comprises applying linear regression techniques to an expression for said productivity scores of a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} \text{ , where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters (e.g., page 6, lines 8-18; page 7, lines 11-17; page 10, lines 3-18; page 17, line 19 – page 18, line 8; page 19, lines 14-21; and page 20, lines 1-21).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1.   That claims 1, 3, and 5-28 are unpatentable under 35 USC § 101 as allegedly directed to non-statutory subject matter.

2.   That claims 1, 3, 5, 8-19, and 22-32 are unpatentable under 35 USC § 103(a) over the combination of various instances of the Examiner's Official Notice (see, e.g., pages 3, 12, 15, 19, and 21 of the Final Office Action) in view of

> **Roth** (Philip L. Roth & Philip Bobko, *A Research Agenda for Multi-Attribute Utility Analysis in Human Resource Management*, 7 Hum. Resource Mgmt. Rev. 3, 341-368 (1997)),

> **Edwards** (Jeffrey R. Edwards & Mark E. Parry, *On the Use of Polynomial Regression as an alternative to Difference Scores in Organizational Research*, 36 Acad. of Mgmt. J. 6, 1577-1613 (Dec., 1993)), and further in view of

> **Trocine** (Linda Trocine & Linda Malone, *Finding Important Independent Variables Through Screening Designs: A Comparison of Methods*, Proc. of the 2000 Winter Simulation Conf., 749-754 (2000)).

3.   That claims 6-7, 20-21, and 33-34 are unpatentable under 35 USC § 103(a) over the combination of the Examiner's Official Notice (used to reject a preceding base claim) in view of Roth, Edwards, Trocine, and in further view of **Jacobson** (Tom Jacobson, *Reaching New Heights*, 22 Credit Union Mgmt., Madison 6 (June 1999)).

VII. ARGUMENT

I.   **Ground of Rejection No. 1: Claims 1, 3, and 5-28 Are Directed to Statutory Subject Matter Under Section 101**

Claims 1, 3, and 5-28 recite statutory subject matter under the "machine or transformation" test of *In re Bilski*, 545 F.3d. 943 , (Fed. Cir. 2008). Claims 1 and 22 are in independent form. Claims 3 and 5-21 depend from claim 1, and claims 23-28 depend from independent claim 22. Independent claims 1 and 22 clearly recite and are "tied to" machines, and are therefore directed to statutory subject matter under the "machine-transformation" test. Specifically, independent claims 1 and 22 are each directed to a "computer implemented method," and each further recites "storing employee task data in a database of a computing system." Claim 1 further recites "analyzing said productivity scores . . . utilizing said computing system." Claim 22 further recites "applying linear regression techniques to said productivity scores utilizing the computing system."

In the Final Office Action, the Examiner discounted the patentability of independent claims 1 and 22 under Section 101, because, according to the Examiner, "[t]he **main parts** of the method claim, ie. the generating, selecting, performing, analyzing and applying steps fail to positively recite a tie to a particular machine or apparatus." (Final Office Action, page 2, emphasis added.) However, the Examiner did not cite any case law to support the notion that the "main parts" of a claim must be tied to a machine or apparatus under Section 101. Further, Appellants are unaware of any such requirement. In *Bilski*, the Court stated that "[a] claimed process is *surely* patent-eligible under § 101 if: (1) *it is tied to a particular machine or apparatus*." (*Bilski* at 24, emphasis added.) The court did not state that the "main parts" of a claim be tied to a machine.

Further, even if *Bilski* did require that the "main parts" of a claim be tied to a machine, which it does not, contrary to the Examiner's assertion, both claims are tied to machines in those portions that the Examiner identified as the "main parts" of each claim. For example, claim 1 recites "analyzing said productivity scores . . . utilizing said computing system," and claim 22 recites "applying linear regression techniques to said productivity scores utilizing the computing system." Thus, independent claims 1 and 22 are clearly directed to statutory subject matter, even

under the Examiner's "main parts" theory of statutory subject matter. Therefore, for at least the reasons stated above, claims 1, 3, and 5-28 recite patentable subject matter under Section 101, and the rejection of those claims based on Section 101 must be reversed.

II.   Grounds of Rejection Nos. 2 and 3:

A. The Examiner's Official Notice is Improper

The Examiner has continued to rely on Official Notice to reject every pending claim, claims 1, 3, and 5-34. Appellants have repeatedly challenged each use of Official Notice and repeatedly requested the Examiner to provide documentary evidence to support each instance of Official Notice. Each instance of Official Notice is improper, as the Examiner has not provided any evidence to support even one instance of Official Notice. Thus, the Section 103 rejections cannot be sustained unless the Examiner provides the required documentary evidence.

1.   The Examiner Must Support Each Instance of Official Notice

Instead of supporting the numerous instances of Official Notice with an affidavit, a reference, or any evidence whatsoever, the Examiner has boldly alleged that the burden is on the Appellants to "provide [] evidence as to why the facts that are the subject of the Official Notice are not, in fact, old and well known." (Final Office Action, page 2.) Appellants do not have the burden to provide evidence to dispute the Examiner's Official Notice, unless the Examiner actually provides the required documentary evidence to support the Official Notice in the first place. Under the Examiner's interpretation of Official Notice, the Examiner could simply take Official Notice that the entire claim is "old and well known," and require Appellants to prove otherwise. Such an interpretation clearly contradicts the explicit requirements of the CFR and MPEP that require an Examiner to support an instance of Official Notice if challenged.

The MPEP and the CFR are clear that the Examiner is *required* to support each instance of Official Notice when challenged. For example, 37 CFR § 1.104(d)(2) clearly states that the Examiner is required to provide an affidavit to support the Official Notice. "When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, *and the reference must be supported, when called for by the applicant*, by the affidavit of such employee." (37 CFR § 1.104(d)(2).) Thus, without providing any evidence, the rejections relying on Official Notice must be withdrawn.

2. No Instance of Official Notice is Admitted Prior Art

The Examiner alleged that "[t]he MPEP is clear that once Official Notice is taken, the burden is on the applicant to point out <u>why</u> the subject of Official Notice is not old and well known." (Final Office Action, page 2, emphasis in original.) MPEP Section 2144.03(C) is entitled "If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, *the Examiner Must Support the Finding With Adequate Evidence*." (MPEP § 2144.03(C), emphasis added.) Challenging Official Notice by requesting documentary support is an adequate and proper traversal of an Examiner's reliance on Official Notice as discussed in Section 2144.03(C). Thus, the Examiner is required to either support each instance of Official Notice with documentary support, or withdraw every Section 103 rejection which relies on Official Notice.

3. Official Notice Is Not Limited to the Two Explicitly Stated Instances

The Examiner stated that the taking of Official Notice was limited to two very broad statements. However, the Examiner has taken Official Notice in at least four other instances to reject the pending claims. The Examiner alleged that Official Notice was limited to the following:

(1) "that it is old and well known to remove outliers from a probabilistic distribution," and

(2) "that it is old and well known in an organization for individuals to perform different tasks."

(Final Office Action, page 2.) However, the Examiner used at least four other instances of Official Notice, all of which are unsupported by any documentary evidence. For example, the Examiner disagreed with Appellants argument that the cited references fail to teach "storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task," as recited in claim 1. However, the Examiner then simply took Official Notice in the context of the rest of the claim recitations that "storing data in a database, while not explicitly taught by the references, is old and well known" while ignoring what the claim recitation at issue

really stated. (Final Office Action, page 3.) The Examiner then alleged that the remainder of the claim was nonfunctional and therefore irrelevant.

Dependent claim 9 recites that "said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked." Regarding claim 9, the Examiner took Official Notice that "using such a measure is known in the art to provide normalization, i.e. a standardization of what time workers work such that a comparison can be made between the amount of work achieved." (Final Office Action, page 19.)

The Examiner also took Official Notice regarding claim 11 that "it is old and well known in the art to determine and remove anomalous data points for the purpose of improving accuracy of results in an analysis," again ignoring what the claim actually recites. (Final Office Action, page 21.) Regarding claim 29, the Examiner took Official Notice that "performing the method steps taught by Roth and Edwards using computer software running on a computer system is old and well known in the art." (Final Office action, page 23.)

4. The Two Explicit and Other Implicit Instances of Official Notice Are Overbroad and Inapplicable to the Claim Recitations

The Examiner stated that the taking of Official Notice was limited to the following: (1) "that it is old and well known to remove outliers from a probabilistic distribution," and (2) "that it is old and well known in an organization for individuals to perform different tasks." (Final Office Action, page 2.) These two instances of Official Notice are improper as being nothing more than overbroad generalizations. Both statements are so overbroad that neither is applicable to Appellants' claims, nor could such overbroad statements be properly combined with the cited references and applied to the claim recitations, as discussed in more detail below. The same issue applies to the numerous implicit instances of Official Notice. Thus, independent of the other deficiencies noted above, the manner in which the Notice is applied is also inappropriate.

Therefore, the obviousness rejections of every pending claim must be reversed as they rely on the improper usage of Official Notice.

B. Independent Claim 1 Is Patentable Over The Cited References

In the Final Office Action, claim 1 was rejected under Section 103(a) as being unpatentable over the Examiner's Official Notice in view of Roth, Edwards, and further in view

of Trocine. As discussed above, the Examiner's Official Notice is improper. As discussed in detail below, Roth clearly fails to teach or suggest numerous recitations found in Appellants' claims. Further, none of the other cited references compensate for the acknowledged deficiencies of Roth. In addition, there is certainly no rationale to support combining the references.

1. *"storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task"*

None of the cited references, including Roth, teach or suggest the identified recitation. For this reason alone, claim 1 is patentable over the cited references. The Examiner alleged that Roth teaches the identified recitation. However, the Examiner dismissed the identified recitation by taking Official Notice for part of the recitation and then simply alleging that the remainder of the recitation is irrelevant as "nonfunctional." Clearly none of the cited references teach or suggest the identified recitation. Further, contrary to the Examiner's allegation, the recitations of "said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task" cannot simply be ignored.

Specifically, the Examiner stated that "[t]he particular type of data that is claimed does not distinguish over the type of data claimed, because the method steps would be performed the same way." (Final Office Action, page 3.) The Examiner then cited *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 (Fed. Cir. 1994); and MPEP § 2106. However, MPEP Section 2106 covers patentable subject matter eligibility under Section 101. Where the MPEP mentions *In re Gulack* and *In re Lowry*, the MPEP actually states that **all claim recitations must be considered** in view of the cited references. The cases cited by the Examiner only reinforce Appellants' position that the Examiner cannot simply ignore those recitations where the cited references are clearly deficient.

MPEP Section 2106.01 clearly states that "USPTO personnel **must** consider **all claim limitations** when determining patentability of an invention over the prior art." (MPEP § 2106.01, emphasis added.) Thus, contrary to the Examiner's assertion, the identified claim recitations must be considered. Previously, Appellants argued that Roth fails to teach or suggest

"storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task." The Examiner disagreed, but instead of showing how Roth teaches the identified recitation, the Examiner took Official Notice that "storing data in a database, while not explicitly taught by the references, is old and well known." (Final Office Action, page 3.) Clearly claim 1 recites more than simply "storing data in a database," and thus the Examiner's Official Notice, while improper, still fails to compensate for the acknowledged deficiencies of the cited references.

The Examiner alleged that "the references do teach manipulating and analyzing employee data," but failed to show how or where any of the cited references include any such disclosure. (Final Office Action, page 3.) The Examiner then simply alleged that the remaining recitations, i.e., that "said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task," were irrelevant. The Examiner alleged that "[t]he particular type of data that is claimed does not distinguish over the type of data claimed, because the method steps would be performed the same way." (Id.) Further, the Examiner alleged that "the type of data recited here is nonfunctional," and thus can simply be ignored. (Final Office Action, page 8.)

However, portions of the claim cannot simply be ignored by alleging that "the type of data . . . is nonfunctional." As previously discussed, the Examiner must consider all claim recitations. Clearly, Roth says nothing at all about "employee task data," and clearly fails to teach or suggest "storing employee task data in a database." In addition, none of the cited references or the Examiner's improper instances of Official Notice compensate for the deficiencies of Roth.

2. *"generating sets of task scores based on a selected model design of task assignments utilizing said employee task data"*

In the Final Office Action, the Examiner alleged that Roth teaches the identified recitation in a section entitled "The Need for Multi-Attribute Utility" on page 343. (Final Office Action, page 3.) Further, the Examiner alleged that "Roth teaches generating task scores (eg. Interview and cognitive test) as part of multiattribute analysis (MAU)." (Final Office Action, page 8.) However, Roth says nothing about "employee task data," let alone "generating sets of

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task scores based on a selected model design of task assignments utilizing said employee task data," as recited in claim 1.

Roth is directed to a method of analyzing a potential human resource management decision, which Roth describes as a method "to help guide decision making and estimate the value of Human Resource Management (HRM) interventions." (Roth at 341.) Roth notes that "[m]ost applications of utility analysis in Human Resource Management have focused upon only one outcome of a selection system – the value of job performance in dollars. Multi-attribute utility (MAU) analysis allows decision makers to incorporate multiple outcomes into their analytic decisions." (Id.) Further Roth states that "[multi-attribute utility analysis] may be defined as a set of procedures to guide decision making that integrate multiple outcomes from a course of action into a single number that represents the usefulness of that course of action." (Roth at 342.)

On page 343, Roth analyzes a hypothetical potential human resource decision involving hiring new sales managers. Roth states that "an HRM [human resource management] department may be interested in hiring 25 district sales managers," for example, by "using either a cognitive ability test or a structured behavioral interview." (Roth at 343.) Clearly the cited portion of Roth fails to teach or suggest "generating sets of task scores based on a selected model design of task assignments utilizing said employee task data," as recited in claim 1. As previously discussed, Roth says nothing at all about "employee task data," and therefore clearly fails to teach or suggest "generating sets of task scores . . . utilizing said employee task data," as recited in claim 1.

In the paragraph cited by the Examiner on page 343, Roth states that "[u]se of a MAU approach requires combining the various attributes important to decision makers. This can be accomplished by developing a set of functions that weight each attribute and combining the attributes into a single metric." (Roth at 343.) The Examiner alleged that Roth teaches "generating sets of task scores based on a selected model design of task assignments utilizing said employee task data" by allegedly teaching "a model of measuring employee performance based on a cognitive test and interview." (Final Office action, page 4.) However, Roth says nothing at all about "generating sets of task scores." The Examiner equated "employee task data" with "how the employees performed in the above tests." (Id.) However, Roth actually

discusses measuring how a hiring decision should be analyzed, and says nothing at all about "how the employees performed" in the interview tests.

3. *"selecting a centralized composite design as said model design"*

The Examiner acknowledged that Roth fails to teach or suggest the identified recitation, and cited Trocine for the deficiencies of Roth. (Final Office Action, page 8.) First, the Examiner quoted the following passage of Roth:

> MAU also increases the participation of decision makers in the utility analysis process by asking them what factors to consider, how to measure the factors, and what functions should be used to combine them.

(Roth at 341.) The Examiner then alleged that "[f]rom this passage *it is implied* that an issue in constructing an MAU is identifying 'what factors to consider.'" (Final Office Action, page 5, emphasis added.) Next, the Examiner stated that "[p]art of the answer in identifying what factors to consider is provided by Trocine." (Id.)

However, it is clear from the cited passage that Roth is seeking a broad range of input on a wide range of issues affecting a decision, and is seeking that input from "decision makers." Roth is not discussing "selecting a centralized composite design as said model design," as recited in claim 1. Notably, a "model design" refers in part to "generating sets of task scores based on a selected model design of task assignments utilizing said employee task data," as also recited in claim 1. Clearly Roth's disclosure of seeking input from decision makers as to "what factors to consider, how to measure the factors, and what functions should be used to combine them" is clearly distinguishable from "selecting a centralized composite design as said model design," as recited in claim 1. In addition, Trocine fails to compensate for the acknowledged deficiencies of Roth.

Trocine is directed to designing experiments, and more specifically to "finding important independent variables through screening designs" for use in "a simulation model or [a] production system." (Trocine at 749.) Notably, Trocine states that "[t]hese important variables can later be used to optimize the [simulation] model," and that "[s]imulation models typically represent complex and stochastic systems. Experimentation on these systems is assumed to be time consuming and can be expensive in terms of computation. Minimizing the number of

experiments while maximizing information is the ultimate goal." (Id.) Clearly Trocine is neither applicable to the teachings of Roth, nor to Appellants' claims.

The Examiner alleged that "Trocine teaches what is known in the art about factorial designs (a factorial design is a centralized composite design) where this analytic approach allows a decision maker to identify which variables in a model are significant." (Final Office Action, page 5.) However, neither Roth nor Trocine say anything at all about "selecting a centralized composite design as said model design," as recited in claim 1. Further, Trocine is clearly not directed to Roth or Appellants' claims, and thus cannot be combined with Roth. Even if Trocine and Roth were combined as alleged by the Examiner, the combination still fails to teach "selecting a centralized composite design as said model design." Nor is there any motivation or suggestion to combine Roth and Trocine.

The Examiner alleged that combining the alleged teachings of Trocine with Roth "allows a decision maker to identify which variables in a model are significant. This would be important to a person of ordinary skill in the art attempting to use MAU . . . because it would provide insight into what variables would have an impact on employee performance." (Final Office Action, page 5.) However, Roth specifically teaches asking decision makers for their input regarding which factors to use, as discussed in the portion cited by the Examiner. For example, Roth states that "MAU also increases the participation of decision makers in the utility analysis process by asking them what factors to consider, how to measure the factors, and what functions should be used to combine them." (Roth at 341.) Further, Trocine is directed to designing experiments and finding important independent variables through screening designs for use in a simulation model. Clearly Roth says nothing at all about using experiments to determine which factors to use in a human resource management decision. Thus, there is clearly no motivation to combine the alleged teachings of Trocine with Roth.

4. *"performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores"*

Appellants previously argued that Roth fails to teach the identified recitation. The Examiner disagreed and stated that "MAU as taught by Roth evaluates individual performance (e.g. the cognitive test and interview per above) to determine what the scores are for that performance (i.e. assigning productivity scores to the task scores." (Final Office Action, page 6.)

Specifically, the Examiner alleged that Roth teaches the identified recitation in a section entitled "The Need for Multi-Attribute Utility." (Final Office Action, page 11.) However, as previously discussed, Roth says nothing at all about "assigning productivity scores" or any "task scores." In fact, Roth says nothing about scoring how an employee performed during an interview, let alone "performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores," as recited in claim 1.

As previously discussed, in the portion cited by the Examiner, Roth analyzes a hypothetical potential human resource decision involving a process to interview job candidates. However, nowhere in the disclosure cited by the Examiner does Roth teach or suggest "performing a plurality of evaluations of said sets of task scores," nor does Roth even mention "assigning productivity scores," as recited in claim 1.

5. *"analyzing said productivity scores to determine productivity parameters, wherein analyzing said productivity scores comprises applying linear regression techniques to said productivity scores utilizing said computing system"*

The Examiner previously argued that Roth taught the identified recitations. The Examiner is now relying on a combination of Roth, Edwards, and Trocine to reject this recitation of claim 1. However, even the combination of Roth, Edwards, and Trocine fails to teach or suggest the identified recitation of claim 1.

The Examiner stated that "Roth teaches that an individual's performance can be measured by a weighted combination of scores for tasks that they perform." (Final Office Action, page 6.) However, Roth includes no such disclosure as Roth says nothing about using "a weighted combination of scores for tasks that they perform." The Examiner also stated that on page 353 Roth teaches that "the combination of the attributes into a single score requires analyzing the scores to determine the weights (i.e. productivity parameters) for how they are combined." (Final Office Action, page 11.) The Examiner appears to be relying on some alleged inherent disclosure of Roth. However, whether Roth fails to explicitly or inherently teach or suggest "analyzing the scores to determine the weights (i.e. productivity parameters)," as alleged by the Examiner.

In the cited portion, Roth discusses "develop[ing] a series of utility functions," where "[o]ne function is needed for each indicator so that all the indicator values can be combined into a single composite number expressing the benefits of each decision option." (Roth at 353.) However, Roth says nothing at all about "productivity scores," "productivity parameters," or "applying linear regression techniques to said productivity scores," as recited in claim 1. Further, the Examiner did not identify which part of the claim recitation that Roth fails to teach, but alleged that "Trocine provides an indication of what type tasks [sic] should be included in the combination." (Final Office Action, page 6.) Trocine includes no such disclosure, and the Examiner did not cite any portion of Trocine to support the allegation. The Examiner then cited Edwards for the deficiencies of Roth and Trocine, and stated the following:

> Edwards provides what is known in the art about multivariate regression, which is a technique for determining an equation in more than one variable, where the weights or coefficients for those variables (i.e. determining productivity parameters) is determined through the statistical analysis provided by multivariate regression."

(Final Office Action, pages 6-7.) However, Roth clearly fails to mention a need for any additional mathematical analysis technique, let alone "multivariate regression." Notably, Roth states that the "use of a MAU approach requires combining the various attributes . . . [by] developing a set of functions that weight each attribute and combin[e] the attributes *into a single metric*." (Roth at 343, emphasis added.) Once combined into a single metric, there is no need to perform any multivariate regression, and there is no reason to combine the teachings of Edwards with Roth.

6. *"applying said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees"*

The Examiner previously argued that Roth taught the identified recitation. The Examiner is now relying on a combination of Roth, Edwards, and Trocine to reject this recitation of claim 1. However, even the combination of Roth, Edwards, and Trocine fails to teach or suggest the identified recitation of claim 1.

The Examiner alleged that Roth teaches that "one of the tasks with MAU is to combine various scores using weights," and the Examiner further alleged that "[i]t has been clearly shown

that Trocine teaches what variables to measure and Edwards teaches how to use statistical techniques to determine the weights to use with MAU in combining the individual's scores." (Final Office Action, page 7.) However, as previously discussed, the cited references fail to even mention "productivity parameters" or "employee task scores," let alone teach or suggest "applying said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees," as recited in claim 1.

The Examiner admitted that "Roth does not teach where the evaluation method is for evaluating different employees who are performing different tasks." (Final Office Action, page 12.) The Examiner then took Official Notice that "it is old and well known in the art for individuals in an organization to perform different tasks." (Id.) However, as previously discussed, the Examiner's Official Notice is improper and the Section 103 rejection should be reversed for this reason alone. The Examiner's Official Notice is unsupported by any evidence, overbroad, vague, and fails to even address the specific recitation in Appellants' claims.

The Examiner's Official Notice is so overbroad as it cannot possibly relate to Appellants' claims. Individuals within an organization *may or may not* perform different tasks, *may or may not* be required to perform such different tasks, and *may or may not* be evaluated based on their performance of differing tasks. Generalizing that individuals perform different tasks ignores the complexity of an employee's role in an organization, and further ignores the complexities of analyzing employee performance. However, the Official Notice, even if accepted as prior art, fails to teach or suggest "applying said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees," as recited in claim 1. Further, neither the Examiner's Official Notice, nor Roth or Trocine, includes any suggestion or motivation to modify the teachings of Roth to render the identified recitation obvious.

The Examiner stated that

> Since Roth teaches using different utility functions that are combined to represent different factors as an input into productivity, it would have been obvious . . . to modify those teachings to include applying the utility function idea to the different tasks performed by different employees, because it would provide a way to provide a comparative measure of different employee's contributions to a firm's productivity, thus improving the ability of the firm to value different employees.

(Final Office Action, page 12.) However, the Examiner is simply using Appellants' claims as a road map to form the obviousness rejection. The Examiner reasoned that this drastic modification to Roth would have been obvious "because it would provide a way to provide a comparative measure of different employee's contributions to a firm's productivity, thus improving the ability of the firm to value different employees." (Final Office Action, page 12.) The Examiner is using Appellants' claims as both a road map and as a motivation to modify the teachings of Roth to perform the recitations of Appellants' claims. The Examiner's reasoning appears circular – it would be obvious to modify Roth to perform Appellants' claimed recitations because it could then perform Appellants' claimed recitations.

For at least the foregoing reasons, independent claim 1 is patentable over the Examiner's Official Notice and the cited references. Accordingly, Appellants respectfully request reversal of the Section 103 rejection of claim 1, as well as of claims 3 and 5-21 depending therefrom.

C. Independent Claim 22 Is Patentable Over the Cited References

The Examiner rejected independent claim 22 under Section 103(a) as being unpatentable over the combination of Official Notice, Roth, Trocine, and Edwards. As discussed above, the Examiner's Official Notice is improper and cannot be relied upon to support the Section 103 rejection. Furthermore, the cited references fail to teach or suggest numerous recitations found in independent claim 22. In addition, there is no motivation to combine the references.

Claim 22 reads:

> A computer implemented method of determining productivity parameters for evaluating employee performance for employees having differing task assignments, comprising:
> storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task;
> generating sets of task scores based on a selected model design of task assignments utilizing said employee task data;
> selecting a centralized composite design as said model design;
> performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores; and

applying linear regression techniques to said productivity
scores utilizing the computing system to obtain said productivity
parameters using an expression having a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'}, \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,
PS_t is a productivity score for said assignment t as a function of said measured
values, $F_{t1}, F_{t2}, \ldots F_{tK}$, and
α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

The Examiner alleged that "[c]laim 22 recites similar limitations to those addressed by
the rejection of Claims 2 and 3 . . . and are [sic] therefore rejected under the same rationale."
(Final Office Action, page 22.) However, claim 22 is not identical to claims 2 and 3. As
discussed in detail above regarding claim 1, Roth fails to teach or suggest multiple recitations
found in claim 22. Furthermore, the Examiner's reliance on Official Notice is improper.

For example, as discussed above, none of the cited references, whether viewed alone or
in combination, teach or suggest any of the following:

storing employee task data in a database of a computing system, wherein
said employee task data includes a number of tasks completed and an amount of
time spent on at least one completed task;

generating sets of task scores based on a selected model design of task
assignments utilizing said employee task data;

selecting a centralized composite design as said model design;

performing a plurality of evaluations of said sets of task scores, said
evaluations assigning productivity scores to said sets of task scores; and

applying linear regression techniques to said productivity scores utilizing
the computing system to obtain said productivity parameters.

Thus, for at least the reasons setting forth the patentability of claim 1, independent claim
22 is patentable over the cited references. Accordingly, Appellants respectfully request reversal
of the Section 103 rejection of claim 22, as well as of claims 23-28 depending therefrom.

D. Independent Claim 29 Is Patentable Over the Cited References

The Examiner rejected claim 29 under Section 103(a) based on the combination of the
Examiner's Official Notice, Roth, Edwards, and Trocine. More specifically, the Examiner
alleged that "[c]laim 29 recites similar limitations to those addressed by the rejection of Claim 22

above by Roth, and is therefore rejected under the same rationale." (Final Office Action, page 23.) The Examiner admitted that

> Roth and Edwards do not explicitly teach performing his [sic] method using computer readable medium containing instructions for causing a computer system to perform method steps, however Official Notice is taken that performing the method steps taught by Roth and Edwards using computer software running on a computer system is old and well known in the art.

(Id.) However, claim 29 is not identical to claim 22. Furthermore, as discussed in detail above, the Examiner's reliance on Official Notice is improper, and the Section 103 rejection should be reversed for this reason alone. Also, as discussed in detail above regarding independent claims 1 and 22, the cited references, whether viewed alone or in combination, fail to teach or suggest multiple recitations found in independent claim 29. Thus, for at least the reasons setting forth the patentability of independent claims 1 and 22, independent claim 29 is patentable over the cited references. Accordingly, Appellants respectfully request reversal of the Section 103 rejection of claim 29, as well as claims 30-32 depending therefrom.

E. Independent Claim 33 Is Patentable Over the Cited References

The Examiner rejected claim 33 under Section 103(a) based on the combination of the Examiner's Official Notice, Roth, Edwards, Trocine, and Jacobson. (Final Office Action, page 24.) More specifically, the Examiner alleged that "[c]laim 33 recites similar limitations to those addressed by the rejection of Claim 6 above by Roth and Jacobson, and is therefore rejected under the same rationale." (Final Office Action, page 26.) However, claim 33 is not identical to claim 6. Furthermore, as discussed in detail above, the Examiner's reliance on Official Notice is improper, and the Section 103 rejection should be reversed for this reason alone. In addition, as discussed in detail above regarding independent claims 1 and 22, the cited references fail to teach or suggest multiple recitations found in independent claim 33.

Thus, for at least the reasons setting forth the patentability of independent claims 1, 22, and 29, independent claim 33 is patentable over the cited references. Accordingly, Appellants respectfully request reversal of the Section 103 rejection of claim 33.

F. The Dependent Claims Are Patentable Over the Cited References

Appellants note that all dependent claims are allowable, at least for reasons based on their dependencies from an allowable independent claim. However, as discussed below by way of example with respect to dependent claims 3, 5, 8-10, 12, 14, 16-17, 23-26, 30, and 34, the dependent claims are also independently patentable over the cited references.

1. Dependent Claim 3

Claim 3 depends from claim 1, and recites the following:

> The method of claim 1, wherein said linear regression is applied to an expression for said productivity scores having a form
>
> $$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} \text{ , where}$$
>
> F_{tk} is a measured value for a k task of assignment t,
> PS_t is a productivity score for said assignment t as a function of said measured values,
> $F_{t1}, F_{t2}, \ldots F_{tK}$, and
> α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

The Examiner alleged that Roth teaches the various recitations of claim 3, and admitted that Roth fails to teach "a second order polynomial of the form A + BX + CX^2, where the A, B and C are constants and the productivity score is a second order polynomial in X (where X is a task)." (Final Office Action, page 16.) The Examiner then cited Edwards for the acknowledged deficiencies of Roth. (Final Office Action, pages 16-17.) However, claim 3 does not recite a "second order polynomial," as illustrated above. Further, none of the cited references, whether viewed alone or in combination, teach or suggest the various recitations of dependent claim 3. For example, none of the cited references teach or suggest that "said linear regression is applied to an expression for said productivity scores," and clearly the cited references fail to teach or suggest using the equation recited in claim 3.

Specifically, the Examiner alleged that "Roth notes that utility functions can be used in evaluation of employee performance." (Final Office Action, page 16.) However, as discussed above, Roth says nothing at all about evaluating employee performance. In the portions of Roth cited by the Examiner (e.g., page 1, last paragraph – page 2, first paragraph), Roth discusses

"using groups in the decision making process" to help guide human resource decisions, such as a whether to hire more employees.

The Examiner further alleged that Roth teaches that "[t]hese utility functions combined provide a single output value (i.e. a productivity value)," and that "Roth teaches individual tasks that a person performs where the tasks are combined in a utility function." (Final Office Action, page 16.) However, the Examiner did not cite any portion of Roth for this allegation because Roth includes no such teaching. Further, as discussed above, none of the cited references compensate for the deficiencies of Roth.

For at least these reasons, dependent claim 3 is patentable over the cited references.

2. Dependent Claims 16 and 34

The Examiner stated that claims 16 and 34 were rejected under a similar rationale as applied to claim 3. (Final Office Action, pages 22 and 29.) Although differing in scope, dependent claims 16 and 34 are patentable over the cited references for at least the reasons discussed above with respect to dependent claim 3. Claim 16 depends from claim 15, which depends from claim 14, which depends from claim 1. Claim 16 recites the following:

> The method of claim 15, wherein said linear regression is applied to the expression
>
> $$PS_t(F_{t1},F_{t2},...,F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk}F_{tk} + \sum_{k=1}^{K}\sum_{k'=1}^{K} \gamma_{tkk'}F_{tk}F_{tk'} \text{, where}$$
>
> F_{tk} is a measured value for a k task of assignment t,
> PS_t is a productivity score for said assignment t as a function of said measured values,
> $F_{t1}, F_{t2}, \ldots F_{tK}$, and
> α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

Claim 34 depends from independent claim 33 and recites the following:

> The computer implemented application of claim 33, wherein analyzing said productivity scores comprises applying linear regression techniques to an expression for said productivity scores of a form
>
> $$PS_t(F_{t1},F_{t2},...,F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk}F_{tk} + \sum_{k=1}^{K}\sum_{k'=1}^{K} \gamma_{tkk'}F_{tk}F_{tk'} \text{, where}$$
>
> F_{tk} is a measured value for a k task of assignment t,
> PS_t is a productivity score for said assignment t as a function of said measured values,

F_{t1}, F_{t2}, ... F_{tK}, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

As discussed above, Roth says nothing at all about a "productivity value" or "tasks," and clearly fails to teach or suggest the identified recitations of claims 16 and 34. Further, although the Examiner alleged that "Roth teaches individual tasks that a person performs where the tasks are combined in a utility function," Roth includes no such teaching or suggestion. (Final Office Action, page 16.) Thus, for at least these reasons, dependent claims 16 and 34 are patentable over the cited references.

3.   Dependent Claim 5

Claim 5 depends from claim 1 and recites the following:

The method of claim 1, wherein generating said sets of task scores comprises:
determining whether said sets of task scores exceed a predetermined number; and
modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number.

Regarding claim 5, the Examiner admitted that Roth does not teach any of the recitations of claim 5. (Final Office Action, page 17.) The Examiner then alleged that Trocine compensates for the numerous deficiencies of Roth. (Final Office Action, page 18.) Specifically, the Examiner alleged the following:

Trocine teaches that screening designs to identify variables can result in excessive runs or experiments as provided by a full factorial and even a fractional factorial can result in a large number of experiments. Trocine teaches limiting based upon a predetermined number of variable (page 751 column 2 bottom para) Trocine teaches that the combinations of runs required by a fractional factorial can result in a large number of required experiments and the desired result of using a fractional factorial is to avoid the excessive number of runs required by a full factorial. The guidelines suggested by Trocine teach the determining and modifying steps - i.e. limiting the number of variables to 20.

(Id.) However, as previously discussed, Trocine is directed to designing experiments, and has nothing to do with the teachings of Roth or Appellants' claims. Clearly Trocine says nothing at all about "generating said sets of task scores," and thus cannot teach or suggest the identified recitations of claim 5. Further, even if these alleged teachings of Trocine were accepted as true, Trocine still fails to teach or suggest "wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number; and modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number," as recited in claim 5.

Thus, for at least these reasons, dependent claim 5 is patentable over the cited references.

4. Dependent Claims 14 and 23

The Examiner stated that claim 14 "recites limitations similar to those addressed by the rejection of Claim 5, and therefore is rejected under the same rationale." (Final Office Action, page 18.) Further, the Examiner rejected claim 23 under the same rationale as applied to claim 5. Although differing in scope, dependent claims 14 and 23 are patentable over the cited references for at least the reasons discussed above with respect to dependent claim 5. Claim 14 depends from claim 1 and recites the following:

> The method of claim 1, wherein generating said sets of task scores comprises:
>   determining whether said sets of task scores exceed a predetermined
> number; and
>   modifying said selected model design by a fractional factorial when said
> sets of task scores exceed said predetermined number.

Claim 23 depends from independent claim 22 and recites the following:

> The method of claim 22, wherein generating said sets of task scores comprises:
>   determining whether said sets of task scores exceed a predetermined
> number; and
>   modifying said selected model design by a fractional factorial when said
> sets of task scores exceed said predetermined number.

As discussed above, the Examiner admitted that Roth fails to teach any of the recitations of claims 14 and 23. Further, Trocine clearly fails to compensate for the deficiencies of Roth. Thus, for at least these reasons, dependent claims 14 and 23 are patentable over the cited references.

5. Dependent Claim 8

Claim 8 depends from claim 1 and recites in part "wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores." The Examiner alleged that Roth teaches the recitations of claim 8 on page 352 in the last paragraph. Specifically, the Examiner stated that "the development of various scores by group members

suggests the development of more than one set of scores, i.e. thus adding a number of recorded scores to a base set of scores." (Final Office Action, pages 18-19, emphasis added.)

However, Roth says nothing about "scores." Further, as acknowledged by the Examiner, Roth clearly fails to explicitly teach "adding a number of recorded task scores to said sets of task scores," as recited in claim 8. The Examiner is attempting to stretch the alleged teaching of Roth by equating one "score" with "more than one set[s] of scores" and "thus adding a number of recorded scores to a base set of scores." (Final Office Action, pages 18-19.) Further, in the cited portion, Roth fails to even mention using one "score," let alone "sets of task scores," as recited in claim 8.

In the cited portion, e.g., page 352 last paragraph, Roth is merely discussing "Groups Literature" and states that "[t]he groups literature suggests that certain types of groups may perform better because MAU decision makers define measures of attributes and because they must estimate uncertain quantities for the maximum and minimum number for each measure." (Roth at 352.) Further, in the last paragraph of 352, Roth is merely citing previous papers and providing a very brief statement regarding their findings about "estimating uncertain quantities when estimating maximum and minimum values for measures." (Id.)

Thus, Roth says nothing at all about "generating sets of task scores," and clearly fails to teach or suggest "adding a number of recorded task scores to said sets of task scores," as recited in claim 8. Thus, for at least these reasons, dependent claim 8 is patentable over the cited references.

6. Dependent Claim 24

Claim 24 depends from independent claim 22 and recites in part "wherein generating said sets of task scores comprises adding a number of recorded task scores to said sets of task scores." The Examiner rejected claim 24 using the same rationale as applied to claim 8. (Final Office Action, page 22.) Although differing in scope, claim 24 is patentable over the cited references for at least the reasons discussed above with respect to claim 8. Thus, for at least these reasons, dependent claim 24 is patentable over the cited references.

7. Dependent Claim 9

Claim 9 depends from claim 8, which depends from claim 1. Claim 9 recites in part "wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked." The Examiner alleged that Roth teaches the identified recitations on page 343, paragraphs 3 and 4 with a discussion of how "the MAU approach includes combining attributes based on factors (i.e. they are scaled)," and "since the particular tasks are an interview and a test, this *suggests* work performed over a common period." (Final Office Action, page 19, emphasis added.) However, Roth says nothing at all about conducting interviews "over a common work period." Furthermore, Roth says nothing at all about the "sets of task scores [being] scaled to represent performance by employees over a common work period," as recited in claim 9.

The Examiner then admitted that Roth fails to teach "with a fixed number of hours worked," but took Official Notice that "that using such a measure is known in the art to provide normalization, i.e. a standardization of what time workers work such that a comparison can be made between the amount of work achieved." (Final Office Action, page 19.) However, as previously discussed, the Examiner's Official Notice is improper and cannot stand. Further, even if the Examiner's Official Notice were accepted, Roth has nothing to do with evaluating employee performance, and clearly fails to teach or suggest that "sets of task scores are scaled to represent performance by employees over a common work period," as recited in claim 9.

In the portion cited by the Examiner, Roth analyzes a hypothetical potential human resource decision involving hiring new sales managers. Roth states that "an HRM [human resource management] department may be interested in hiring 25 district sales managers," for example, by "using either a cognitive ability test or a structured behavioral interview." (Roth at 343.) Clearly the cited portion says nothing at all about "sets of task scores [being] scaled to represent performance by employees over a common work period," as recited in claim 9. Thus, for at least these reasons, dependent claim 9 is patentable over the cited references.

8. Dependent Claims 12 and 25

Claim 12 depends from claim 11, which depends from claim 10, which depends from claim 1. Claim 25 depends from claim 24, which depends from independent claim 22. Although differing in scope, the Examiner rejected claims 12 and 25 using the same rationale as applied to dependent claim 9. (Final Office Action, pages 21, 22.) Claims 12 and 25 each recites in part that the "sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked."

As discussed above with respect to claim 9, the Examiner's Official Notice is improper and cannot support the Section 103 rejections. Further, even if the Examiner's Official Notice were accepted, Roth has nothing to do with evaluating employee performance, and clearly fails to teach or suggest that "sets of task scores are scaled to represent performance by employees over a common work period," as recited in claims 12 and 25. Further, Roth clearly fails to teach or suggest scaling anything, let alone that "sets of task scores are scaled." Thus, for at least these additional reasons, dependent claims 12 and 25 are patentable over the cited references.

9. Dependent Claim 10

Claim 10 depends from claim 1 and recites in part "wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores." The Examiner alleged that "Roth teaches various techniques for assigning scores where the assigners are familiar with what is being rated and in assigning scores," and cited page 350, paragraph 2. (Final Office Action, page 20.) However, as previously discussed, Roth says nothing at all about "assigning scores." Further, the cited portion merely discusses the findings of group researchers and discusses how "[g]roup researchers have tested the effects of staticized, Delphi, Consensus, and nominal groups," and then discusses a few details of each type of group. For example, Roth states that "[s]taticized groups are essentially collections of individuals who never meet and make suggestions or estimate quantities," and "[d]elphi groups are similar since they never meet as a group to offer suggestions or make estimates." (Roth at 350, ¶ 2.)

Clearly Roth says nothing at all about "said plurality of evaluations [being] performed by a plurality of evaluators," where the "evaluators [are] familiar with said task assignments and

with assigning productivity scores," as recited in claim 10. Thus, for at least these additional reasons, dependent claim 10 is patentable over the cited references.

10. Dependent Claims 17, 26, and 30

Claim 17 depends from claim 16, which depends from claim 15, which depends from claim 14, which depends from claim 1. Claim 26 depends from independent claim 22, and claim 30 depends from independent claim 29. Although differing in scope, the Examiner rejected claims 17, 26, and 30 using the same rationale as applied to dependent claim 10. (Final Office Action, pages 22, 23.) Claims 17, 26, and 30 each recites in part that "said plurality of evaluations are performed by a plurality of evaluators," where "said evaluators [are] familiar with said task assignments and with assigning productivity scores."

For at least the reasons discussed above with respect to claim 10, dependent claims 17, 26, and 30 are patentable over the cited references.

CONCLUSION

In view of the above analysis, a reversal of the rejections of record is respectfully requested of this Honorable Board. It is believed that any fees associated with the filing of this paper are identified in an accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 18-0013, under Order No. 65632-0559, from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136(a) is hereby made, the fee for which should be charged against the aforementioned account.

Dated: October 28, 2009   Respectfully submitted,

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APPENDIX A – CLAIMS APPENDIX

Pursuant to 37 CFR § 41.37(c)(vii), the following listing provides a copy of the claims involved in the appeal. As indicated above, the claims in Appendix A include the amendments filed by Appellant on February 2, 2009.

1.   A computer implemented method of determining comparable performance measures for employees having differing task assignments, comprising:

storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task;

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data;

selecting a centralized composite design as said model design;

performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores;

analyzing said productivity scores to determine productivity parameters, wherein analyzing said productivity scores comprises applying linear regression techniques to said productivity scores utilizing said computing system; and

applying said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees.

3.   The method of claim 1, wherein said linear regression is applied to an expression for said productivity scores having a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} , \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

5.   The method of claim 1, wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number; and

modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number.

6.   The method of claim 1, further comprising:

calculating statistical measures for said performance measures over a time period; and

identifying employees having performance measures outside a range of said statistical measures.

7.   The method of claim 6, further comprising identifying trends in said performance measures over multiple ones of said time period.

8.   The method of claim 1, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores.

9.   The method of claim 8, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked.

10.   The method of claim 1, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores.

11.   The method of claim 10, further comprising:

assigning evaluator parameters to each of said plurality of evaluators;

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations;

removing said anomalous ones of said plurality of evaluations; and

returning to analyzing said productivity scores.

12.   The method of claim 11, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked.

13.   The method of claim 10, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters.

14.   The method of claim 1, wherein generating said sets of task scores comprises:

    determining whether said sets of task scores exceed a predetermined number; and

    modifying said selected model design by a fractional factorial when said sets of task scores exceed said predetermined number.

15.   The method of claim 14, wherein analyzing said productivity scores comprises applying linear regression techniques to said productivity scores.

16.   The method of claim 15, wherein said linear regression is applied to the expression

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} , \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

17.   The method of claim 16, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores.

18.   The method of claim 17, further comprising:

    assigning evaluator parameters to each of said plurality of evaluators;

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations;

removing said anomalous ones of said plurality of evaluations; and

returning to analyzing said productivity scores.

19.   The method of claim 18, wherein generating sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters.

20.   The method of claim 19, further comprising:

calculating statistical measures for said performance measures over a selected time period; and

identifying employees having performance measures outside a range of said statistical measures.

21.   The method of claim 20, further comprising identifying trends in said performance measures over multiple ones of said selected time periods.

22.   A computer implemented method of determining productivity parameters for evaluating employee performance for employees having differing task assignments, comprising:

storing employee task data in a database of a computing system, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task;

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data;

selecting a centralized composite design as said model design;

performing a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores; and

applying linear regression techniques to said productivity scores utilizing the computing system to obtain said productivity parameters using an expression having a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} \text{ , where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

23. The method of claim 22, wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined number; and

modifying said selected model design by a fractional factorial when said sets of task scores exceed said predetermined number.

24. The method of claim 22, wherein generating said sets of task scores comprises adding a number of recorded task scores to said sets of task scores.

25. The method of claim 24, wherein said sets of task scores are scaled to represent performance by employees over a common work period, with a fixed number of hours worked.

26. The method of claim 22, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores.

27. The method of claim 26, further comprising:

assigning evaluator parameters to each of said plurality of evaluators;

comparing said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations;

removing said anomalous ones of said plurality of evaluations; and

returning to analyzing said productivity scores.

28.   The method of claim 27, wherein generating said sets of task scores comprises adding a number of recorded task scores to said sets of task scores, and using productivity scores assigned to said recorded task scores for each of said evaluators as one of said evaluator parameters.

29.   A computer-readable medium containing instructions for controlling a computer system to determine comparable performance measures for employees having differing task assignments, said instructions controlling said computer system to:

store employee task data, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task;

generate sets of task scores based on a selected model design of task assignments utilizing said employee task data, wherein said model design is a centralized composite design;

obtain a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores;

apply linear regression techniques to said productivity scores to obtain said productivity parameters using an expression having a form

$$PS_t(F_{t1}, F_{t2},...,F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'} \text{ , where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \dots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters; and

apply said productivity parameters to employee task scores for said employees to obtain said performance measures for said employees.

30.   The computer-readable medium of claim 29, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores.

31.   The computer-readable medium of claim 30, further comprising instructions for controlling the computer to:

assign evaluator parameters to each of said plurality of evaluators;

compare said plurality of productivity scores assigned by each of said evaluators using said evaluator parameters in analyzing said productivity scores to determine anomalous ones of said plurality of evaluations;

remove said anomalous ones of said plurality of evaluations; and

return to analyzing said productivity scores.

32.   The computer-readable medium of claim 31, wherein:

said instructions to generate said sets of task scores comprise instructions for controlling the computer to add a number of recorded task scores to said sets of task scores; and

said instructions to compare said plurality of productivity scores comprise instructions for controlling the computer to use said productivity scores assigned to said recorded task scores by each of said evaluators as one of said evaluator parameters.

33.   A computer implemented application on computer-readable medium, said application comprising instructions to compare employee performance for employees having differing task assignments, said application comparing employee performance by:

storing employee task data, wherein said employee task data includes a number of tasks completed and an amount of time spent on at least one completed task;

generating sets of task scores based on a selected model design of task assignments utilizing said employee task data, wherein said model design is a centralized composite design;

obtaining a plurality of evaluations of said sets of task scores, said evaluations assigning productivity scores to said sets of task scores;

analyzing said productivity scores to determine productivity parameters;

applying said productivity parameters to employee task scores for said employees to obtain performance measures for said employees;

calculating statistical measures for said performance measures over a time period; and

identifying employees having performance measures outside a range of said statistical measures.

34.   The computer implemented application of claim 33, wherein analyzing said productivity scores comprises applying linear regression techniques to an expression for said productivity scores of a form

$$PS_t(F_{t1}, F_{t2}, ..., F_{tK}) = \alpha_t + \sum_{k=1}^{K} \beta_{tk} F_{tk} + \sum_{k=1}^{K} \sum_{k'=1}^{K} \gamma_{tkk'} F_{tk} F_{tk'}, \text{ where}$$

F_{tk} is a measured value for a k task of assignment t,

PS_t is a productivity score for said assignment t as a function of said measured values,

$F_{t1}, F_{t2}, \ldots F_{tK}$, and

α_t, β_{tk} and $\gamma_{tkK'}$ are said productivity parameters.

APPENDIX B – EVIDENCE APPENDIX

Not applicable – in this Appeal, Appellants do not rely on any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, or on any other evidence entered by the Examiner.

APPENDIX C - RELATED PROCEEDINGS APPENDIX

Not applicable – there are no Board decisions in any of the related proceedings identified above.